

# Case Summary: Evaluating the Cognitive Analytics Frontier

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## Key Concepts

Information Technology, Knowledge Management, Product Development, Machine Learning

## Abstract

In the fall of 2014, Chad Kartchner, senior manager of marketing and product management at Honeywell Aerospace (HA), pondered how technology could transform the way aircraft were maintained. He had heard a lot of buzz about cognitive analytics, an artificial intelligence term referring to the use of computer models and algorithms to simulate human thought through self-learning systems, data mining, pattern recognition, and natural language processing. The sheer volume of parts and the time-sensitive nature of repairs in the aviation industry made it complicated to identify problems and address them quickly.

Kartchner contemplated the options for updating HA's ground-based maintenance system. Should he emulate HA's state-of-the-art on-board system for an entire aircraft or try something new? Emulating the on-board system, which HA developed internally, would be an easy sell to leadership given internal buy-in and satisfaction with the on-board system, but he contemplated new approaches because he did not want to overlook rapidly emerging technologies. The latter could include crowdsourced features that leveraged the abundance of knowledge among HA's customers' technicians or a cognitive analytics approach. Even if he could persuade leadership to try a new cognitive analytics approach, should HA partner with an established entity or work with a relatively unproven startup who promised lower cost, better features, and quicker turnaround to develop a new system?

Students will step into the shoes of Kartchner as he leads the internal discussion on whether and how to tap into the benefits of cognitive analytic solutions for Honeywell Aerospace and its customers.

## Learning Objectives

After reading and discussing the case, students will be able to formulate useful questions about evaluating the pros and cons of a new technology to solve a critical business challenge; appraise how machine learning, natural language processing, and cognitive analytics platforms can facilitate access to information in multi-dimensional datasets to inform business decisions; and gain experience discussing risks and rewards of partnering with an established firm versus an unproven startup.